

We claim:

5. 1. A crosslinked, water-soluble or water-dispersible polyurethane of
  - A) at least one water-soluble or water-dispersible polyurethane prepolymer containing terminal isocyanate groups of
    - a) at least one compound having a molecular weight in the range from 56 to 300 which contains two active hydrogen atoms per molecule,
      - 15 b) at least one polymer containing two active hydrogen atoms per molecule,
      - c) at least one compound which contains two active hydrogen atoms and at least one ionogenic or ionic group per molecule,
        - 20 d) at least one diisocyanate,
    - B) at least one polymer containing groups which are reactive toward isocyanate groups, chosen from hydroxyl, and primary and secondary amino and/or carboxyl groups,
      - 25 or a salt thereof.
  2. A polyurethane as claimed in claim 1, where the ratio of NCO equivalent of the compounds of component d) to equivalent of active hydrogen atom of components a), b) and c) is in a range from 1.01:1 to 1.4:1.
    - 35 3. A polyurethane as claimed in claim 1, where the polymer B) comprises, in copolymerized form,
      - 40 e) at least one  $\alpha,\beta$ -ethylenically unsaturated monomer which additionally contains at least one group which is reactive toward isocyanate groups per molecule,

f) optionally at least one  $\alpha,\beta$ -ethylenically unsaturated monomer which is chosen from esters of  $\alpha,\beta$ -ethylenically unsaturated mono- and/or dicarboxylic acids with C<sub>1</sub>- to C<sub>22</sub>-alkanols, amides of  $\alpha,\beta$ -ethylenically unsaturated mono- and/or dicarboxylic acids with mono- and di-C<sub>1</sub>- to C<sub>22</sub>-alkylamines, esters of vinyl alcohol and allyl alcohol with C<sub>1</sub>- to C<sub>40</sub>-monocarboxylic acids, vinyl ethers, aromatic vinyl compounds, vinyl halides, vinylidene halides, C<sub>2</sub>- to C<sub>8</sub>-monoolefins, nonaromatic hydrocarbons having at least 2 conjugated double bonds and mixtures thereof,

g) optionally at least one  $\alpha,\beta$ -ethylenically unsaturated monomer which is chosen from N-vinylamides, N-vinyllactams, primary amides of  $\alpha,\beta$ -ethylenically unsaturated monocarboxylic acids, vinyl- and allyl-substituted heteroaromatic compounds and mixtures thereof,

h) optionally at least one further monomer containing a free-radically polymerizable,  $\alpha,\beta$ -ethylenically unsaturated double bond and at least one ionogenic or ionic group per molecule.

4. A polyurethane as claimed in claim 3, where the polymer B) comprises, in copolymerized form,

- from 0.05 to 15% by weight of at least one component e),
- from 0 to 99.9% by weight of at least one component f),
- from 0 to 99.9% by weight of at least one component g), and
- from 0 to 50% by weight of at least one component h)

the total amount of components f) and g) being in a range from 30 to 99.9% by weight.

5. A polyurethane as claimed in claim 3, where the component e) is an ester of acrylic acid or methacrylic acid with a C<sub>2</sub>- to C<sub>12</sub>-aminoalcohol, where the amine nitrogen may additionally carry a C<sub>1</sub>- to C<sub>8</sub>-alkyl radical.

6. A polyurethane as claimed in claim 1 where the ratio of NCO equivalent of the component A) to equivalent of active hydrogen atom of component B) is in a range from 20:1 to 1:1.

5 7. A polymer which comprises, in copolymerized form:

- from 0.05 to 15% by weight of a component e), as defined in claim 5, preferably tert-butylaminoethyl acrylate and/or tert-butylaminoethyl methacrylate,

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- from 0 to 99.9% by weight of at least one component f),
- from 0.1 to 99.9% by weight of at least one component g),

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- from 0 to 50% by weight of at least one component h)

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where the components f), g) and h) are as defined in claim 3 and the total amount of components f) and g) is in a range from 30 to 99.9% by weight.

8. A cosmetic or pharmaceutical composition which comprises at least one polyurethane as claimed in claim 1.

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9. A composition as claimed in claim 8 which is a coating composition for hair, skin and nails.

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10. A composition as claimed in claim 8 comprising

a) from 0.5 to 20% by weight of at least one water-soluble or -dispersible polyurethane as defined in claims 1,

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b) from 40 to 99% by weight of a solvent chosen from water and water-miscible solvents and mixtures thereof,

c) from 0 to 50% by weight of a propellant,

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d) from 0 to 15% by weight of at least one water-soluble or -dispersible hair polymer which is different from a),

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e) from 0 to 0.2% by weight of at least one water-insoluble silicone, and

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f) from 0 to 2% by weight of at least one nonionic, siloxane-containing, water-soluble or -dispersible polymer.

5 11. A coating composition or binder for solid drug forms, which comprises at least one polyurethane as claimed in claim 1.

12. A coating composition for the textile, paper, printing, leather and adhesives industries, which comprises at least  
10 one polyurethane as claimed in claim 1

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